

STATEMENT OF BASIS

Lee Brass Foundry, LLC

Anniston, AL

Calhoun County

301-0005

This proposed Title V Major Source Operating Permit renewal is issued under the provisions of ADEM Admin. Code R. 335-3-16. The above named applicant has requested authorization to perform the work or operate the facility shown on the application and drawings, plans and other documents attached hereto or on file with the Air Division of the Alabama Department of Environmental Management, in accordance with the terms and conditions of this permit.

Lee Brass Foundry, LLC was issued its existing Major Source Operating Permit (MSOP) on October 21, 2011, with an expiration date of October 20, 2016. Per ADEM Rule 335-3-16-.12(2), an application for permit renewal shall be submitted at least six (6) months, but not more than eighteen (18) months, before the date of expiration of the permit. Based on this rule, the application for renewal was due to the Department no later than April 20, 2016, but no earlier than April 21, 2015. An application for permit renewal was received by the Department on April 25, 2016, after it was discussed with facility it would be a couple days late. Based on this the Department considers this to be a timely application. Additional emissions information was received on May 3, 2016.

Based on the Title V Permit application Lee Brass Foundry, LLC is a major source for Particulate Matter (PM) and a minor source for PSD.

On June 7, 2012, Lee Brass Foundry was issued a modification to the MSOP, the modification was for a facility name change, Lee Brass Company (former name) to Lee Brass Foundry, LLC, new name.

The following 502(b)10 configuration changes have taken place since the last Title V, Major Source Operating Permit was issued:

On June 17, 2013, the Department issued a letter for a section 502(b)10 change for Lee Brass Foundry, LLC located in Anniston, Alabama, for the following equipment configuration changes,

these changes in configuration apply to Emission Points (EP) 007, 008 and 009, all part of Foundry #3. The first change shifted nine (9) ladle heaters from Baghouse #9 (EP 009) to Baghouse #7 (EP 007) this change would have a negligible change in emissions to both (EP 007 and EP 009). Change two diverted ductwork of two (2) wheelabrators from Baghouse #9 (EP 009) over to Baghouse #8 (EP 008) which currently only has five cut-off saws and One (1) tabor saw. There will be no increase in emissions of particulate matter at the facility and all current Major Source Operating Permit conditions will remain the same.

On June 23, 2015, the Department issued a letter for a section 502(b)(10) change for Lee Brass Foundry, LLC located in Anniston, Alabama, for the following equipment configuration changes, these changes in configuration apply to Emission Points (EP) 002, 003, 004, 005 and 008, (EP) 002, 003, 004 and 005 are all part of Foundry #1 and EP 008 is part of Foundry #3. The first change removed old metal recovery system controlled by Baghouse #5 (EP005) and replace it with a more efficient new metal recovery system which will have a reduction in CFM rating to this baghouse. Change two applies to Baghouse #4 (EP 004) which had the load of (4) Channel Furnaces. Lee Brass removed (4) Ladle Heaters and (2) Coreless Induction Furnaces and (1) Pouring Hood from Baghouse #2 (EP002) and shifted them to Baghouse #4 (EP004). This change increases the Baghouse current capacity to 51,084 CFM which is still well below the 63,000 CFM designed rating for the Baghouse #4 (EP004). Configuration change three removed the Pangborn Shotblast Machine rated at 4000 CFM from Baghouse #3 (EP003) and shifted it to the closer Baghouse #2 (EP002). Configuration change four added a new Didion Metal Reclaimer (part of the new Metal Recovery System) also added (4) cut-off saws and the above referenced Pangborn Blast Machine to Baghouse #2 (EP002) rated at 46,000 CFM, the changes are a combined 21,780 CFM to Baghouse #2 (EP002) well below the 46,000 CFM rating. The last configuration change removed and replaced a cut-off saw from Baghouse #8 (EP 008) and replaced it with a small grinder the configuration change will result in a reduction in load to Baghouse #8 (EP 008). The configuration changes will help Lee Brass to reduce and minimize emissions and improve current process operations. There will be no increase in emissions of particulate matter at the facility and all current Major Source Operating Permit conditions will remain the same.

Two Ajax Coreless Furnaces & Foundry 1 Pouring and Cooling w/ Baghouse # 2

Brass ingot and scrap is charged into the furnace and melted. The molten metal is poured into pouring ladles and transferred by monorail to the pouring track where the metal is poured into sand molds.

Emission Standards:

PM:

Particulate matter (PM) emissions from this unit shall not exceed the allowable set by ADEM Admin. Code R. 335-3-4-.04.

ADEM Admin. Code R. 335-3-4-.04

Expected Emissions:

Particulate Matter (PM):

The expected controlled PM emissions from these operations are 0.03 lbs/hr (0.15 TPY). This is based on a control efficiency of 98%, a material balance, and operating 8,760 hours per year.

Periodic Monitoring:

The facility shall perform a visual check, once per day, of the baghouse stack associated with this unit. This check shall be performed by a person familiar with Method 9. If visible emissions in excess of 10% opacity are noted, and not corrected within a period of 1 hour, a Method 9 must be performed within 4 hours of the observation. Maintenance shall be performed as needed. Any repairs or observed problems shall be recorded.

ADEM Admin. Code R. 335-3-16-.05(c)

The facility shall perform a weekly inspection of the baghouse to verify proper operation. The following activities shall be performed:

- (a) Check hopper, fan, and cleaning cycle for proper operation.
- (b) Check all hoods and ducts.
- (c) Record any repairs or observed problems.

ADEM Admin. Code R. 335-3-16-.05(c)

The facility shall perform an annual inspection of the baghouse to verify proper operation. The following activities shall be performed:

- (a) Inspect baghouse structure, access doors, door seals, and bags.

- (b) Perform an internal inspection of the baghouse hoppers.
- (c) Record any repairs or observed problems.

ADEM Admin. Code R. 335-3-16-.05(c)

CAM:

This operation does not have pre-controlled potential emissions greater than any major source threshold; therefore, CAM does not apply.

Compliance and Performance Test Methods and Procedures

Method 5 of 40 CFR (Latest Edition) Part 60, Appendix A shall be used in the determination of particulate matter emissions.

ADEM Admin. Code R. 335-3-1-.05

Method 9 of 40 CFR (Latest Edition) Part 60, Appendix A shall be used in the determination of the opacity.

ADEM Admin. Code R. 335-3-1-.05

Recordkeeping & Reporting:

The facility shall maintain a record of all inspections performed to satisfy the requirements of emission monitoring. This shall include all problems observed, excursions, and corrective actions taken. Each record shall be maintained for a period of 5 years.

ADEM Admin. Code R. 335-3-16-.05(c)

If a Method 9 test is performed, the results will be documented using an ADEM visible emissions observation report, and the cause and corrective action will be documented in a logbook. Each record shall be maintained for a period of 5 years.

ADEM Admin. Code R. 335-3-16-.05(c)

Pangborn Blast Machine – Foundry 1 w/ Baghouse # 2

This unit is used for abrasive dry blast cleaning of brass castings and revert using steel shot. This process removes sand adhering to the cast metals.

Emission Standards:

PM:

Particulate matter emissions from this unit shall not exceed the lesser of 5.5 lbs/hr or the allowable set by ADEM Admin. Code R. 335-3-4-.04.

ADEM Admin. Code R. 335-3-14-.04 (Anti –PSD) & 335-3-4-.04

Expected Emissions:

Particulate Matter (PM):

The expected controlled PM emissions from the blast machine are 0.09 lbs/hr (0.39 TPY). This is based on a control efficiency of 98%, a material balance, and operating 8,760 hours per year.

Periodic Monitoring:

The facility shall perform a visual check, once per day, of the baghouse stack associated with this unit. This check shall be performed by a person familiar with Method 9. If visible emissions in excess of 10% opacity are noted, and not corrected within a period of 1 hour, a Method 9 must be performed within 4 hours of the observation. Maintenance shall be performed as needed. Any repairs or observed problems shall be recorded.

ADEM Admin. Code R. 335-3-16-.05(c)

The facility shall perform a weekly inspection of the baghouse to verify proper operation. The following activities shall be performed:

- (a) Check hopper, fan, and cleaning cycle for proper operation.
- (b) Check all hoods and ducts.
- (c) Record any repairs or observed problems.

ADEM Admin. Code R. 335-3-16-.05(c)

The facility shall perform an annual inspection of the baghouse to verify proper operation. The following activities shall be performed:

- (a) Inspect baghouse structure, access doors, door seals, and bags.
- (b) Perform an internal inspection of the baghouse hoppers.
- (c) Record any repairs or observed problems.

ADEM Admin. Code R. 335-3-16-.05(c)

CAM:

This operation does not have pre-controlled potential emissions greater than any major source threshold; therefore, CAM does not apply.

Compliance and Performance Test Methods and Procedures

Method 5 of 40 CFR (Latest Edition) Part 60, Appendix A shall be used in the determination of particulate matter emissions.

ADEM Admin. Code R. 335-3-1-.05

Method 9 of 40 CFR (Latest Edition) Part 60, Appendix A shall be used in the determination of the opacity.

ADEM Admin. Code R. 335-3-1-.05

Recordkeeping & Reporting:

The facility shall maintain a record of all inspections performed to satisfy the requirements of emissions monitoring. This shall include all problems observed, excursions, and corrective actions taken. Each record shall be maintained for a period of 5 years.

ADEM Admin. Code R. 335-3-16-.05(c)

If a Method 9 test is performed, the results will be documented using an ADEM visible emissions observation report, and the cause and corrective action will be documented in a logbook. Each record shall be maintained for a period of 5 years.

ADEM Admin. Code R. 335-3-16-.05(c)

Four Electric Induction Furnaces – Foundry 1 w/ Baghouse # 4

These furnaces are used to melt brass ingot, gates, and risers to provide molten metal to the pouring lines.

Emission Standards:

PM:

Particulate matter (PM) emissions from this unit shall not exceed the allowable set by ADEM Admin. Code R. 335-3-4-.04.

ADEM Admin. Code R. 335-3-4-.04

Expected Emissions:

Particulate Matter (PM):

The expected PM emissions from the induction furnaces are 0.16 lbs/hr (0.68 TPY). This is based on a control efficiency of 98%, material balance, and operating 8,760 hours per year.

Periodic Monitoring:

The facility shall perform a visual check, once per day, of the baghouse stack associated with this unit. This check shall be performed by a person familiar with Method 9. If visible emissions in excess of 10% opacity are noted, and not corrected within a period of 1 hour, a Method 9 must be performed within 4 hours of the observation. Maintenance shall be performed as needed. Any repairs or observed problems shall be recorded.

ADEM Admin. Code R. 335-3-16-.05(c)

The facility shall perform a weekly inspection of the baghouse to verify proper operation. The following activities shall be performed:

- (a) Check hopper, fan, and cleaning cycle for proper operation.
- (b) Check all hoods and ducts.
- (c) Record any repairs or observed problems.

ADEM Admin. Code R. 335-3-16-.05(c)

The facility shall perform an annual inspection of the baghouse to verify proper operation. The following activities shall be performed:

- (a) Inspect baghouse structure, access doors, door seals, and bags.
- (b) Perform an internal inspection of the baghouse hoppers.
- (c) Record any repairs or observed problems.

ADEM Admin. Code R. 335-3-16-.05(c)

CAM:

This operation does not have pre-controlled potential emissions greater than any major source threshold; therefore, CAM does not apply.

Compliance and Performance Test Methods and Procedures

Method 5 of 40 CFR (Latest Edition) Part 60, Appendix A shall be used in the determination of particulate matter emissions.

ADEM Admin. Code R. 335-3-1-.05

Method 9 of 40 CFR (Latest Edition) Part 60, Appendix A shall be used in the determination of the opacity.

ADEM Admin. Code R. 335-3-1-.05

Recordkeeping & Reporting:

The facility shall maintain a record of all inspections performed to satisfy the requirements of emission monitoring. This shall include all problems observed, excursions, and corrective actions taken. Each record shall be maintained for a period of 5 years.

ADEM Admin. Code R. 335-3-16-.05(c)

If a Method 9 test is performed, the results will be documented using an ADEM visible emissions observation report, and the cause and corrective action will be documented in a logbook. Each record shall be maintained for a period of 5 years.

ADEM Admin. Code R. 335-3-16-.05(c)

Muller Sand Handling System – Foundry 1 w/ Baghouse # 5

This unit processes used molding sand by screening it to remove large lumps and then conveying to a storage hopper. The sand is fed from the hopper into a sand mixing system where the sand is prepared for reuse. After the molds are poured, the casting is separated from the sand and the sand is returned to the system.

Emission Standards:

The hours of operation for the sand handling system shall not exceed 6,000 hours in any consecutive rolling 12-month period.

ADEM Admin. Code R. 335-3-14-.04 (Anti-PSD)

PM:

Particulate matter (PM) emissions from this unit shall not exceed the allowable set by ADEM Admin. Code R. 335-3-4-.04.

ADEM Admin. Code R. 335-3-4-.04

Expected Emissions:

Particulate Matter (PM):

The expected PM emissions from the sand handling system are 2.69 lbs/hr (8.07 TPY). This is based on a control efficiency of 98%, material balance, and an operating limit of 6,000 hours per year.

Monitoring:

These units are subject to the Compliance Assurance Monitoring (CAM) for PM only; because the unit has pre-controlled potential emissions greater than the major source threshold, is subject to an emission limit for PM, and uses a control device to achieve compliance with the applicable emission limit. Refer to the attached appendix for the monitoring requirements required by CAM. In addition to CAM the following periodic monitoring is also performed to ensure the control equipment is operating properly.

The facility shall perform a weekly inspection of the baghouse to verify proper operation. The following activities shall be performed:

- (a) Check hopper, fan, and cleaning cycle for proper operation.
- (b) Check all hoods and ducts.
- (c) Record any repairs or observed problems.

ADEM Admin. Code R. 335-3-16-.05(c)

The facility shall perform an annual inspection of the baghouse to verify proper operation. The following activities shall be performed:

- (a) Inspect baghouse structure, access doors, door seals, and bags.
- (b) Perform an internal inspection of the baghouse hoppers.
- (c) Record any repairs or observed problems.

ADEM Admin. Code R. 335-3-16-.05(c)

Compliance and Performance Test Methods and Procedures

Method 5 of 40 CFR (Latest Edition) Part 60, Appendix A shall be used in the determination of particulate matter emissions.

ADEM Admin. Code R. 335-3-1-.05

Method 9 of 40 CFR (Latest Edition) Part 60, Appendix A shall be used in the determination of the opacity.

ADEM Admin. Code R. 335-3-1-.05

Recordkeeping & Reporting:

The facility shall maintain a record of all weekly and annual baghouse inspections performed to satisfy the requirements of emission monitoring. This shall include all problems observed, excursions, and corrective actions taken. Each record shall be maintained for a period of 5 years.

ADEM Admin. Code R. 335-3-16-.05(c)

The facility shall maintain a record of monthly and 12-month rolling totals of hours of operation for these units. Each record shall be maintained for a period of 5 years.

ADEM Admin. Code R. 335-3-16-.05(c)

If a Method 9 test is performed, the results will be documented using an ADEM visible emissions observation report, and the cause and corrective action will be documented in a logbook. Each record shall be maintained for a period of 5 years.

40 CFR Part 64

The facility shall maintain a record of all differential pressure readings performed to satisfy the requirements of Compliance Assurance Monitoring. This shall include all problems observed, excursions, and corrective actions taken. Each record shall be maintained for a period of 5 years.

40 CFR Part 64

The facility shall maintain a record of all visual checks and Method 9 tests performed to satisfy the requirements of Compliance Assurance Monitoring. This shall include all problems observed, excursions, and corrective actions taken. Each record shall be maintained for a period of 5 years.

40 CFR Part 64

Brass Casting/Pouring Line – Foundry 3 w/ Baghouse # 6

This unit is used to pour the molten brass into the castings to create the product. The pouring lines are equipped with capture hoods to contain the emissions.

Emission Standards:

The hours of operation for the brass casting/pouring line shall not exceed 4,800 hours in any consecutive rolling 12-month period.

ADEM Admin. Code R. 335-3-14-.04 (Anti-PSD)

PM:

Particulate matter emissions from this unit shall not exceed the lesser of 6.18 lbs/hr or the allowable set by ADEM Admin. Code R. 335-3-4-.04.

ADEM Admin. Code R. 335-3-14-.04 (Anti -PSD) & 335-3-4-.04

Expected Emissions:

Particulate Matter (PM):

The expected PM emissions from the brass casting/pouring line are 0.1 lbs/hr (.055 TPY). This is based on a control efficiency of 99%, material balance, and an operating limit of 4,800 hours per year.

Periodic Monitoring:

The facility shall perform a visual check, once per day, of the baghouse stack associated with this unit. This check shall be performed by a person familiar with Method 9. If visible emissions in excess of 10% opacity are noted, and not corrected within a period of 1 hour, a Method 9 must be performed within 4 hours of the observation. Maintenance shall be performed as needed. Any repairs or observed problems shall be recorded.

ADEM Admin. Code R. 335-3-16-.05(c)

The facility shall perform a weekly inspection of the baghouse to verify proper operation. The following activities shall be performed:

- (a) Check hopper, fan, and cleaning cycle for proper operation.
- (b) Check all hoods and ducts.
- (c) Record any repairs or observed problems.

ADEM Admin. Code R. 335-3-16-.05(c)

The facility shall perform an annual inspection of the baghouse to verify proper operation. The following activities shall be performed:

- (a) Inspect baghouse structure, access doors, door seals, and bags.

- (b) Perform an internal inspection of the baghouse hoppers.
- (c) Record any repairs or observed problems.

ADEM Admin. Code R. 335-3-16-.05(c)

CAM:

This operation does not have pre-controlled potential emissions greater than any major source threshold; therefore, CAM does not apply.

Compliance and Performance Test Methods and Procedures

Method 5 of 40 CFR (Latest Edition) Part 60, Appendix A shall be used in the determination of particulate matter emissions.

ADEM Admin. Code R. 335-3-1-.05

Method 9 of 40 CFR (Latest Edition) Part 60, Appendix A shall be used in the determination of the opacity.

ADEM Admin. Code R. 335-3-1-.05

Recordkeeping & Reporting:

The facility shall maintain a record of all inspections performed to satisfy the requirements of emission monitoring. This shall include all problems observed, excursions, and corrective actions taken. Each record shall be maintained for a period of 5 years.

ADEM Admin. Code R. 335-3-16-.05(c)

The facility shall maintain a record of monthly and 12-month rolling totals of hours of operation for these units. Each record shall be maintained for a period of 5 years.

ADEM Admin. Code R. 335-3-16-.05(c)

If a Method 9 test is performed, the results will be documented using an ADEM visible emissions observation report, and the cause and corrective action will be documented in a logbook. Each record shall be maintained for a period of 5 years.

ADEM Admin. Code R. 335-3-16-.05(c)

Electric Channel and Electric Coreless Furnaces – Foundry 3 w/ Baghouse # 7

These furnaces are used to melt brass ingot, gates, and risers to provide molten metal to the pouring lines and consequently to produce castings.

Emission Standards:

PM:

Particulate matter (PM) emissions from this unit shall not exceed the allowable set by ADEM Admin. Code R. 335-3-4-.04.

ADEM Admin. Code R. 335-3-4-.04

Expected Emissions:

Particulate Matter (PM):

The expected controlled PM emissions from the furnaces are 0.25 lbs/hr (1.09 TPY). This is based on a control efficiency of 98%, a material balance, and operating 8,760 hours per year.

Periodic Monitoring:

The facility shall perform a visual check, once per day, of the baghouse stack associated with this unit. This check shall be performed by a person familiar with Method 9. If visible emissions in excess of 10% opacity are noted, and not corrected within a period of 1 hour, a Method 9 must be performed within 4 hours of the observation. Maintenance shall be performed as needed. Any repairs or observed problems shall be recorded.

ADEM Admin. Code R. 335-3-16-.05(c)

The facility shall perform a weekly inspection of the baghouse to verify proper operation. The following activities shall be performed:

- (a) Check hopper, fan, and cleaning cycle for proper operation.
- (b) Check all hoods and ducts.
- (c) Record any repairs or observed problems.

ADEM Admin. Code R. 335-3-16-.05(c)

The facility shall perform an annual inspection of the baghouse to verify proper operation. The following activities shall be performed:

- (a) Inspect baghouse structure, access doors, door seals, and bags.
- (b) Perform an internal inspection of the baghouse hoppers.

(c) Record any repairs or observed problems.

ADEM Admin. Code R. 335-3-16-.05(c)

CAM:

This operation does not have pre-controlled potential emissions greater than any major source threshold; therefore, CAM does not apply.

Compliance and Performance Test Methods and Procedures

Method 5 of 40 CFR (Latest Edition) Part 60, Appendix A shall be used in the determination of particulate matter emissions.

ADEM Admin. Code R. 335-3-1-.05

Method 9 of 40 CFR (Latest Edition) Part 60, Appendix A shall be used in the determination of the opacity.

ADEM Admin. Code R. 335-3-1-.05

Recordkeeping & Reporting:

The facility shall maintain a record of all inspections performed to satisfy the requirements of emission monitoring. This shall include all problems observed, excursions, and corrective actions taken. Each record shall be maintained for a period of 5 years.

ADEM Admin. Code R. 335-3-16-.05(c)

If a Method 9 test is performed, the results will be documented using an ADEM visible emissions observation report, and the cause and corrective action will be documented in a logbook. Each record shall be maintained for a period of 5 years.

ADEM Admin. Code R. 335-3-16-.05(c)

Two (2) Wheelabrator Shotblast Machines, One (1) Plasma Cutter, One (1) 30" Grinder, and Five(5) Cutoff Saws – Foundry 3 w/ Baghouse # 8

The cutoff saws are used to cut runners and sprues from castings.

Emission Standards:

PM:

Particulate matter (PM) emissions from this unit shall not exceed the allowable set by ADEM Admin. Code R. 335-3-4-.04.

ADEM Admin. Code R. 335-3-4-.04

Expected Emissions:

Particulate Matter (PM):

The expected PM emissions from the saws are 0.46 lbs/hr (2.00 TPY). This is based on a control efficiency of 99%, material balance, and operating 8,760 hours per year.

Monitoring:

This unit is subject to the Compliance Assurance Monitoring (CAM) for PM only; because the unit has pre-controlled potential emissions greater than the major source threshold, is subject to an emission limit for PM, and uses a control device to achieve compliance with the applicable emission limit. Refer to the attached appendix for the monitoring requirements required by CAM. In addition to CAM the following periodic monitoring is also performed to ensure the control equipment is operating properly.

The facility shall perform a weekly inspection of the baghouse to verify proper operation. The following activities shall be performed:

- (a) Check hopper, fan, and cleaning cycle for proper operation.
- (b) Check all hoods and ducts.
- (c) Record any repairs or observed problems.

ADEM Admin. Code R. 335-3-16-.05(c)

The facility shall perform an annual inspection of the baghouse to verify proper operation. The following activities shall be performed:

- (a) Inspect baghouse structure, access doors, door seals, and bags.
- (b) Perform an internal inspection of the baghouse hoppers.

(c) Record any repairs or observed problems.

ADEM Admin. Code R. 335-3-16-.05(c)

Compliance and Performance Test Methods and Procedures

Method 5 of 40 CFR (Latest Edition) Part 60, Appendix A shall be used in the determination of particulate matter emissions.

ADEM Admin. Code R. 335-3-1-.05

Method 9 of 40 CFR (Latest Edition) Part 60, Appendix A shall be used in the determination of the opacity.

ADEM Admin. Code R. 335-3-1-.05

Recordkeeping & Reporting:

The facility shall maintain a record of all weekly and annual baghouse inspections performed to satisfy the requirements of emission monitoring. This shall include all problems observed, excursions, and corrective actions taken. Each record shall be maintained for a period of 5 years.

ADEM Admin. Code R. 335-3-16-.05(c)

If a Method 9 test is performed, the results will be documented using an ADEM visible emissions observation report, and the cause and corrective action will be documented in a logbook. Each record shall be maintained for a period of 5 years.

40 CFR Part 64

The facility shall maintain a record of all differential pressure readings performed to satisfy the requirements of Compliance Assurance Monitoring. This shall include all problems observed, excursions, and corrective actions taken. Each record shall be maintained for a period of 5 years.

40 CFR Part 64

The facility shall maintain a record of all visual checks and Method 9 tests performed to satisfy the requirements of Compliance Assurance Monitoring. This shall include all problems observed, excursions, and corrective actions taken. Each record shall be maintained for a period of 5 years.

40 CFR Part 64

Casting Cleaning & Muller Sand Handling System – Foundry 3 w/ Baghouse # 9

Used molding sand is screened to remove lumps and then conveyed to a storage hopper. The sand is fed from the hopper into a sand mixing system where the sand is prepared for re-use.

Emission Standards:

The hours of operation for these units shall not exceed 6,000 hours in any consecutive rolling 12-month period.

ADEM Admin. Code R. 335-3-14-.04 (Anti-PSD)

PM:

Particulate matter (PM) emissions from these units shall not exceed the allowable set by ADEM Admin. Code R. 335-3-4-.04.

ADEM Admin. Code R. 335-3-4-.04

Expected Emissions:

Particulate Matter (PM):

The expected PM emissions from the sand handling system are 2.81 lbs/hr (8.36 TPY). This is based on a control efficiency of 98%, material balance, and an operating limit of 6,000 hours per year.

Monitoring:

This unit is subject to the Compliance Assurance Monitoring (CAM) for PM only; because the unit has pre-controlled potential emissions greater than the major source threshold, is subject to an emission limit for PM, and uses a control device to achieve compliance with the applicable emission limit. Refer to the attached appendix for the monitoring requirements required by CAM. In addition to CAM the following periodic monitoring is also performed to ensure the control equipment is operating properly.

The facility shall perform a weekly inspection of the baghouse to verify proper operation. The following activities shall be performed:

- (a) Check hopper, fan, and cleaning cycle for proper operation.
- (b) Check all hoods and ducts.
- (c) Record any repairs or observed problems.

ADEM Admin. Code R. 335-3-16-.05(c)

The facility shall perform an annual inspection of the baghouse to verify proper operation. The following activities shall be performed:

- (a) Inspect baghouse structure, access doors, door seals, and bags.
- (b) Perform an internal inspection of the baghouse hoppers.
- (c) Record any repairs or observed problems.

ADEM Admin. Code R. 335-3-16-.05(c)

Compliance and Performance Test Methods and Procedures

Method 5 of 40 CFR (Latest Edition) Part 60, Appendix A shall be used in the determination of particulate matter emissions.

ADEM Admin. Code R. 335-3-1-.05

Method 9 of 40 CFR (Latest Edition) Part 60, Appendix A shall be used in the determination of the opacity.

ADEM Admin. Code R. 335-3-1-.05

Recordkeeping & Reporting:

The facility shall maintain a record of all weekly and annual baghouse inspections performed to satisfy the requirements of emission monitoring. This shall include all problems observed, excursions, and corrective actions taken. Each record shall be maintained for a period of 5 years.

ADEM Admin. Code R. 335-3-16-.05(c)

If a Method 9 test is performed, the results will be documented using an ADEM visible emissions observation report, and the cause and corrective action will be documented in a logbook. Each record shall be maintained for a period of 5 years.

40 CFR Part 64

The facility shall maintain a record of all differential pressure readings performed to satisfy the requirements of Compliance Assurance Monitoring. This shall include all problems observed, excursions, and corrective actions taken. Each record shall be maintained for a period of 5 years.

40 CFR Part 64

The facility shall maintain a record of all visual checks and Method 9 tests performed to satisfy the requirements of Compliance Assurance Monitoring. This shall include all problems observed, excursions, and corrective actions taken. Each record shall be maintained for a period of 5 years.

40 CFR Part 64

South End Cleaning Room w/ Baghouse # 11

This cleaning room includes grinders that grind and cut gates, fins, and imperfections from brass castings. Buzzers are used on small fittings requiring internal grinding.

Emission Standards:

PM:

Particulate matter (PM) emissions from this unit shall not exceed the allowable set by ADEM Admin. Code R. 335-3-4-.04.

ADEM Admin. Code R. 335-3-4-.04

Expected Emissions:

Particulate Matter (PM):

The expected controlled PM emissions from these operations are 0.09 lbs/hr (0.37 TPY). This is based on a control efficiency of 99%, a material balance, and operating 8,760 hours per year.

Periodic Monitoring:

The facility shall perform a visual check, once per day, of the baghouse stack associated with this unit. This check shall be performed by a person familiar with Method 9. If visible emissions in excess of 10% opacity are noted, and not corrected within a period of 1 hour, a Method 9 must be performed within 4 hours of the observation. Maintenance shall be performed as needed. Any repairs or observed problems shall be recorded.

ADEM Admin. Code R. 335-3-16-.05(c)

The facility shall perform a weekly inspection of the baghouse to verify proper operation. The following activities shall be performed:

- (a) Check hopper, fan, and cleaning cycle for proper operation.
- (b) Check all hoods and ducts.
- (c) Record any repairs or observed problems.

ADEM Admin. Code R. 335-3-16-.05(c)

The facility shall perform an annual inspection of the baghouse to verify proper operation. The following activities shall be performed:

- (a) Inspect baghouse structure, access doors, door seals, and bags.
- (b) Perform an internal inspection of the baghouse hoppers.
- (c) Record any repairs or observed problems.

ADEM Admin. Code R. 335-3-16-.05(c)

CAM:

This operation does not have pre-controlled potential emissions greater than any major source threshold; therefore, CAM does not apply.

Compliance and Performance Test Methods and Procedures

Method 5 of 40 CFR (Latest Edition) Part 60, Appendix A shall be used in the determination of particulate matter emissions.

ADEM Admin. Code R. 335-3-1-.05

Method 9 of 40 CFR (Latest Edition) Part 60, Appendix A shall be used in the determination of the opacity.

ADEM Admin. Code R. 335-3-1-.05

Recordkeeping & Reporting:

The facility shall maintain a record of all inspections performed to satisfy the requirements of emission monitoring. This shall include all problems observed, excursions, and corrective actions taken. Each record shall be maintained for a period of 5 years.

ADEM Admin. Code R. 335-3-16-.05(c)

If a Method 9 test is performed, the results will be documented using an ADEM visible emissions observation report, and the cause and corrective action will be documented in a logbook. Each record shall be maintained for a period of 5 years.

ADEM Admin. Code R. 335-3-16-.05(c)

North End Cleaning Room w/ Baghouse # 12

This cleaning room includes grinders that grind and cut gates, fins, and imperfections from brass castings. Buzzers are used on small fittings requiring internal grinding.

Emission Standards:

PM:

Particulate matter (PM) emissions from this unit shall not exceed the allowable set by ADEM Admin. Code R. 335-3-4-.04.

ADEM Admin. Code R. 335-3-4-.04

Expected Emissions:

Particulate Matter (PM):

The expected PM emissions from these operations are 0.61 lbs/hr (2.67 TPY). This is based on a control efficiency of 98%, material balance, and operating 8,760 hours per year.

Monitoring:

This unit is subject to the Compliance Assurance Monitoring (CAM) for PM only; because the unit has pre-controlled potential emissions greater than the major source threshold, is subject to an emission limit for PM, and uses a control device to achieve compliance with the applicable emission limit. Refer to the attached appendix for the monitoring requirements required by CAM. In addition to CAM the following periodic monitoring is also performed to ensure the control equipment is operating properly.

The facility shall perform a weekly inspection of the baghouse to verify proper operation. The following activities shall be performed:

- (a) Check hopper, fan, and cleaning cycle for proper operation.
- (b) Check all hoods and ducts.
- (c) Record any repairs or observed problems.

ADEM Admin. Code R. 335-3-16-.05(c)

The facility shall perform an annual inspection of the baghouse to verify proper operation. The following activities shall be performed:

- (a) Inspect baghouse structure, access doors, door seals, and bags.
- (b) Perform an internal inspection of the baghouse hoppers.
- (c) Record any repairs or observed problems.

ADEM Admin. Code R. 335-3-16-.05(c)

Compliance and Performance Test Methods and Procedures

Method 5 of 40 CFR (Latest Edition) Part 60, Appendix A shall be used in the determination of particulate matter emissions.

ADEM Admin. Code R. 335-3-1-.05

Method 9 of 40 CFR (Latest Edition) Part 60, Appendix A shall be used in the determination of the opacity.

ADEM Admin. Code R. 335-3-1-.05

Recordkeeping & Reporting:

The facility shall maintain a record of all weekly and annual baghouse inspections performed to satisfy the requirements of emission monitoring. This shall include all problems observed, excursions, and corrective actions taken. Each record shall be maintained for a period of 5 years.

ADEM Admin. Code R. 335-3-16-.05(c)

If a Method 9 test is performed, the results will be documented using an ADEM visible emissions observation report, and the cause and corrective action will be documented in a logbook. Each record shall be maintained for a period of 5 years.

40 CFR Part 64

The facility shall maintain a record of all differential pressure readings performed to satisfy the requirements of Compliance Assurance Monitoring. This shall include all problems observed, excursions, and corrective actions taken. Each record shall be maintained for a period of 5 years.

40 CFR Part 64

The facility shall maintain a record of all visual checks and Method 9 tests performed to satisfy the requirements of Compliance Assurance Monitoring. This shall include all problems observed, excursions, and corrective actions taken. Each record shall be maintained for a period of 5 years.

40 CFR Part 64

Four Wheelabrator Shotblast Machines w/ Baghouses # 13, # 14, # 15, & # 16

The wheelabrator shotblast machines are located in the north end, foundry 1, foundry 2, and cleaning room and are controlled by Baghouse # 13, # 14, # 15, and # 16 respectively. Brass castings are shot peened to remove sand cores and molding sand.

Emission Standards:

PM:

Particulate matter (PM) emissions from each these units shall not exceed the allowable set by ADEM Admin. Code R. 335-3-4-.04.

ADEM Admin. Code R. 335-3-4-.04

Expected Emissions:

Particulate Matter (PM):

The expected controlled PM emissions from the shotblast machines, based on a control efficiency of 98%, material balance, and operating 8,760 hours per year, are shown below:

Baghouse	Particulate Matter Emissions	
	lb/hr	TPY
# 13	0.05	0.22
# 14	0.14	0.62
# 15	0.20	0.89
# 16	0.25	1.10

Periodic Monitoring:

The facility shall perform a visual check, once per day, of the baghouse stacks associated with these units. This check shall be performed by a person familiar with Method 9. If visible emissions in excess of 10% opacity are noted, and not corrected within a period of 1 hour, a Method 9 must be performed within 4 hours of the observation. Maintenance shall be performed as needed. Any repairs or observed problems shall be recorded.

ADEM Admin. Code R. 335-3-16-.05(c)

The facility shall perform a weekly inspection of the baghouses to verify proper operation. The following activities shall be performed:

- (a) Check hopper, fan, and cleaning cycle for proper operation.
- (b) Check all hoods and ducts.
- (c) Record any repairs or observed problems.

ADEM Admin. Code R. 335-3-16-.05(c)

The facility shall perform an annual inspection of the baghouses to verify proper operation. The following activities shall be performed:

- (a) Inspect baghouse structure, access doors, door seals, and bags.
- (b) Perform an internal inspection of the baghouse hoppers.
- (c) Record any repairs or observed problems.

ADEM Admin. Code R. 335-3-16-.05(c)

CAM:

This operation does not have pre-controlled potential emissions greater than any major source threshold; therefore, CAM does not apply.

Compliance and Performance Test Methods and Procedures

Method 5 of 40 CFR (Latest Edition) Part 60, Appendix A shall be used in the determination of particulate matter emissions.

ADEM Admin. Code R. 335-3-1-.05

Method 9 of 40 CFR (Latest Edition) Part 60, Appendix A shall be used in the determination of the opacity.

ADEM Admin. Code R. 335-3-1-.05

Recordkeeping & Reporting:

The facility shall maintain a record of all inspections performed to satisfy the requirements of emission monitoring. This shall include all problems observed, excursions, and corrective actions taken. Each record shall be maintained for a period of 5 years.

ADEM Admin. Code R. 335-3-16-.05(c)

If a Method 9 test is performed, the results will be documented using an ADEM visible emissions observation report, and the cause and corrective action will be documented in a logbook. Each record shall be maintained for a period of 5 years.

ADEM Admin. Code R. 335-3-16-.05(c)

Core Oven – Core Room

This unit is used to dry sand molds for castings.

Emission Standards:

PM:

Particulate matter (PM) emissions from this unit shall not exceed the allowable set by ADEM Admin. Code R. 335-3-4-.04.

ADEM Admin. Code R. 335-3-4-.04

Expected Emissions:

Particulate Matter (PM):

The expected PM emissions from the core oven are 0.18 lbs/hr (0.78 TPY). This is an estimation based on operating 8,760 hours per year.

Periodic Monitoring:

The facility shall perform a visual check, once per day, of the stack associated with this unit. This check shall be performed by a person familiar with Method 9. If visible emissions in excess of 10% opacity are noted, and not corrected within a period of 1 hour, a Method 9 must be performed within 4 hours of the observation. Maintenance shall be performed as needed. Any repairs or observed problems shall be recorded.

ADEM Admin. Code R. 335-3-16-.05(c)

CAM:

This operation does not have pre-controlled potential emissions greater than any major source threshold; therefore, CAM does not apply.

Compliance and Performance Test Methods and Procedures

Method 5 of 40 CFR (Latest Edition) Part 60, Appendix A shall be used in the determination of particulate matter emissions.

ADEM Admin. Code R. 335-3-1-.05

Method 9 of 40 CFR (Latest Edition) Part 60, Appendix A shall be used in the determination of the opacity.

ADEM Admin. Code R. 335-3-1-.05

Recordkeeping & Reporting:

Visible checks should be recorded with the date, time, and name of observer. Any repairs or observed problems shall be recorded.

ADEM Admin. Code R. 335-3-16-.05(c)

If a Method 9 test is performed, the results will be documented using an ADEM visible emissions observation report, and the cause and corrective action will be documented in a logbook. Each record shall be maintained for a period of 5 years.

ADEM Admin. Code R. 335-3-16-.05(c)

Compact Attrition Reclamation System – Foundry 3 w/ Baghouse # 18

This unit reduces molds back to original sand through a process of lump breaking, screening, and air classification.

Emission Standards:

PM:

Particulate matter emissions from this unit shall not exceed the lesser of 3.4 lbs/hr or the allowable set by ADEM Admin. Code R. 335-3-4-.04.

ADEM Admin. Code R. 335-3-14-.04 (Anti-PSD) & 335-3-4-.04

Expected Emissions:

Particulate Matter (PM):

The expected PM emissions from this unit are 1.20 lbs/hr (5.26 TPY). This is based on a control efficiency of 99%, material balance, and operating 8,760 hours per year.

Periodic Monitoring:

The facility shall perform a visual check, once per day, of the baghouse stacks associated with these units. This check shall be performed by a person familiar with Method 9. If visible emissions in excess of 10% opacity are noted, and not corrected within a period of 1 hour, a Method 9 must be performed within 4 hours of the observation. Maintenance shall be performed as needed. Any repairs or observed problems shall be recorded.

ADEM Admin. Code R. 335-3-16-.05(c)

The facility shall perform a weekly inspection of the baghouses to verify proper operation. The following activities shall be performed:

- (a) Check hopper, fan, and cleaning cycle for proper operation.
- (b) Check all hoods and ducts.
- (c) Record any repairs or observed problems.

ADEM Admin. Code R. 335-3-16-.05(c)

The facility shall perform an annual inspection of the baghouses to verify proper operation. The following activities shall be performed:

- (a) Inspect baghouse structure, access doors, door seals, and bags.
- (b) Perform an internal inspection of the baghouse hoppers.
- (c) Record any repairs or observed problems.

ADEM Admin. Code R. 335-3-16-.05(c)

CAM:

This operation does not have pre-controlled potential emissions greater than any major source threshold; therefore, CAM does not apply.

Compliance and Performance Test Methods and Procedures

Method 5 of 40 CFR (Latest Edition) Part 60, Appendix A shall be used in the determination of particulate matter emissions.

ADEM Admin. Code R. 335-3-1-.05

Method 9 of 40 CFR (Latest Edition) Part 60, Appendix A shall be used in the determination of the opacity.

ADEM Admin. Code R. 335-3-1-.05

Recordkeeping & Reporting:

The facility shall maintain a record of all inspections performed to satisfy the requirements of emission monitoring. This shall include all problems observed, excursions, and corrective actions taken. Each record shall be maintained for a period of 5 years.

ADEM Admin. Code R. 335-3-16-.05(c)

If a Method 9 test is performed, the results will be documented using an ADEM visible emissions observation report, and the cause and corrective action will be documented in a logbook. Each record shall be maintained for a period of 5 years.

ADEM Admin. Code R. 335-3-16-.05(c)

Recommendation:

Based on the above analysis and pending the resolution of any comments received during the 30-day public comment period and 45 day EPA review, I recommend issuing Lee Brass Foundry, LLC's Title V MSOP renewal.

Paul J. Vaccaro
Industrial Minerals Section
Energy Branch
Air Division

June 22, 2016
Date

APPENDIX CAM

Compliance Assurance Monitoring Requirements

CAM Plan for Rotary Furnace # 2 – Smelter w/ Baghouse # 1

	Indicator 1	Indicator 2
I. Indicator	Visible Emission	Pressure Drop
Measurement Approach	Visible emissions will be observed daily.	A reading of the magnehelic gauge to determine pressure drop will be performed and recorded once per day.
II. Indicator Range	<p>Visible emissions shall be < 10%.</p> <p>An excursion exists when any visual check results in instantaneous visible emissions greater than 10% opacity. If visible emissions in excess of 10% opacity are noted, and are not corrected within a period of 1 hour, a Method 9 must be performed (for at least twelve minutes) within 4 hours of the initial check.</p>	<p>Pressure drop should be maintained at $3 \leq P \leq 10$ inches of water.</p> <p>An excursion is any value less than 3 and greater than 10 inches of water.</p>
III. Performance Criteria		
1. Data Representativeness	Measurements are being made at the emission point. (Baghouse Exhaust)	Measurements are being made at the baghouse inlet and outlet.
2. Verification of Operation Status	Not Applicable	Not Applicable
3. QA/QC Practices and Criteria	The Observer will be a Method 9 trained observer certified every 6 months.	Zero check magnehelics once a week. A weekly blow back purge of magnehelic lines.
4. Monitoring Frequency	Visual checks shall be performed at least once per day.	The pressure drop will be monitored at least daily.
5. Data Collection Procedures	A visible emissions assessment of the baghouse stack and/or a Method 9 will be recorded with the time, date, and name of the observer.	The pressure differential will be recorded with the time, date, and name of the observer.
6. Averaging Period	Visual Check: Instantaneous Method 9: 6-Minute Average	Instantaneous

CAM Plan for Muller Sand Handling System – Foundry 1 w/ Baghouse # 5

	Indicator 1	Indicator 2
I. Indicator	Visible Emission	Pressure Drop
Measurement Approach	Visible emissions will be observed daily.	A reading of the magnehelic gauge to determine pressure drop will be performed and recorded once per day.
II. Indicator Range	<p>Visible emissions shall be < 10%.</p> <p>An excursion exists when any visual check results in instantaneous visible emissions greater than 10% opacity. If visible emissions in excess of 10% opacity are noted, and are not corrected within a period of 1 hour, a Method 9 must be performed (for at least twelve minutes) within 4 hours of the initial check.</p>	<p>Pressure drop should be maintained at $3 \leq P \leq 10$ inches of water.</p> <p>An excursion is any value less than 3 and greater than 10 inches of water.</p>
III. Performance Criteria		
1. Data Representativeness	Measurements are being made at the emission point. (Baghouse Exhaust)	Measurements are being made at the baghouse inlet and outlet.
2. Verification of Operation Status	Not Applicable	Not Applicable
3. QA/QC Practices and Criteria	The Observer will be a Method 9 trained observer certified every 6 months.	Zero check magnehelics once a week. A weekly blow back purge of magnehelic lines.
4. Monitoring Frequency	Visual checks shall be performed at least once per day.	The pressure drop will be monitored at least daily.
5. Data Collection Procedures	A visible emissions assessment of the baghouse stack and/or a Method 9 will be recorded with the time, date, and name of the observer.	The pressure differential will be recorded with the time, date, and name of the observer.
6. Averaging Period	Visual Check: Instantaneous Method 9: 6-Minute Average	Instantaneous

CAM Plan for One Tabor Saw and Five Cutoff Saws – Foundry 3 w/ Baghouse # 8

	Indicator 1	Indicator 2
I. Indicator	Visible Emission	Pressure Drop
Measurement Approach	Visible emissions will be observed daily.	A reading of the magnehelic gauge to determine pressure drop will be performed and recorded once per day.
II. Indicator Range	<p>Visible emissions shall be < 10%.</p> <p>An excursion exists when any visual check results in instantaneous visible emissions greater than 10% opacity. If visible emissions in excess of 10% opacity are noted, and are not corrected within a period of 1 hour, a Method 9 must be performed (for at least twelve minutes) within 4 hours of the initial check.</p>	<p>Pressure drop should be maintained at $3 \leq P \leq 10$ inches of water.</p> <p>An excursion is any value less than 3 and greater than 10 inches of water.</p>
III. Performance Criteria		
1. Data Representativeness	Measurements are being made at the emission point. (Baghouse Exhaust)	Measurements are being made at the baghouse inlet and outlet.
2. Verification of Operation Status	Not Applicable	Not Applicable
3. QA/QC Practices and Criteria	The Observer will be a Method 9 trained observer certified every 6 months.	Zero check magnehelics once a week. A weekly blow back purge of magnehelic lines.
4. Monitoring Frequency	Visual checks shall be performed at least once per day.	The pressure drop will be monitored at least daily.
5. Data Collection Procedures	A visible emissions assessment of the baghouse stack and/or a Method 9 will be recorded with the time, date, and name of the observer.	The pressure differential will be recorded with the time, date, and name of the observer.
6. Averaging Period	Visual Check: Instantaneous Method 9: 6-Minute Average	Instantaneous

CAM Plan for Casting Cleaning & Muller Sand Handling System – Foundry 3
w/ Baghouse # 9

	Indicator 1	Indicator 2
I. Indicator	Visible Emission	Pressure Drop
Measurement Approach	Visible emissions will be observed daily.	A reading of the magnehelic gauge to determine pressure drop will be performed and recorded once per day.
II. Indicator Range	Visible emissions shall be < 10%. An excursion exists when any visual check results in instantaneous visible emissions greater than 10% opacity. If visible emissions in excess of 10% opacity are noted, and are not corrected within a period of 1 hour, a Method 9 must be performed (for at least twelve minutes) within 4 hours of the initial check.	Pressure drop should be maintained at $3 \leq P \leq 10$ inches of water. An excursion is any value less than 3 and greater than 10 inches of water.
III. Performance Criteria		
1. Data Representativeness	Measurements are being made at the emission point. (Baghouse Exhaust)	Measurements are being made at the baghouse inlet and outlet.
2. Verification of Operation Status	Not Applicable	Not Applicable
3. QA/QC Practices and Criteria	The Observer will be a Method 9 trained observer certified every 6 months.	Zero check magnehelics once a week. A weekly blow back purge of magnehelic lines.
4. Monitoring Frequency	Visual checks shall be performed at least once per day.	The pressure drop will be monitored at least daily.
5. Data Collection Procedures	A visible emissions assessment of the baghouse stack and/or a Method 9 will be recorded with the time, date, and name of the observer.	The pressure differential will be recorded with the time, date, and name of the observer.
6. Averaging Period	Visual Check: Instantaneous Method 9: 6-Minute Average	Instantaneous

CAM Plan for North End Cleaning Room w/ Baghouse # 12

	Indicator 1	Indicator 2
I. Indicator	Visible Emission	Pressure Drop
Measurement Approach	Visible emissions will be observed daily.	A reading of the magnehelic gauge to determine pressure drop will be performed and recorded once per day.
II. Indicator Range	<p>Visible emissions shall be < 10%.</p> <p>An excursion exists when any visual check results in instantaneous visible emissions greater than 10% opacity. If visible emissions in excess of 10% opacity are noted, and are not corrected within a period of 1 hour, a Method 9 must be performed (for at least twelve minutes) within 4 hours of the initial check.</p>	<p>Pressure drop should be maintained at $3 \leq P \leq 10$ inches of water.</p> <p>An excursion is any value less than 3 and greater than 10 inches of water.</p>
III. Performance Criteria		
1. Data Representativeness	Measurements are being made at the emission point. (Baghouse Exhaust)	Measurements are being made at the baghouse inlet and outlet.
2. Verification of Operation Status	Not Applicable	Not Applicable
3. QA/QC Practices and Criteria	The Observer will be a Method 9 trained observer certified every 6 months.	Zero check magnehelics once a week. A weekly blow back purge of magnehelic lines.
4. Monitoring Frequency	Visual checks shall be performed at least once per day.	The pressure drop will be monitored at least daily.
5. Data Collection Procedures	A visible emissions assessment of the baghouse stack and/or a Method 9 will be recorded with the time, date, and name of the observer.	The pressure differential will be recorded with the time, date, and name of the observer.
6. Averaging Period	Visual Check: Instantaneous Method 9: 6-Minute Average	Instantaneous